

Shower Oscillation System

Applications

The ArcDrive™ oscillator was designed exclusively to power the revolutionary ArcGlide™ shower bearing. ArcGlide's patented conversion of arc motion into linear motion enables the ArcDrive to use smooth, rotary motion to power the shower oscillation bearing system.

Features

- ▶ 316 stainless steel construction
- ▶ Self-contained rotary actuation
- ▶ Rated up to 300°F ambient temperature
- ▶ Stand alone advanced controls
- ▶ Integrates into the DCS

Benefits

- ▶ No ballscrew or thrust bearing
- ▶ No reciprocating shafts
- ▶ No air volume changes, no condensation build-up
- ▶ No oil-filled barrel
- ▶ Minimal maintenance



Ultimate oscillation

A brushless DC motor is directly coupled to a high efficiency servo-quality gearhead, and the precision movement is transferred to the ArcGlide bearing by simply bolting to its rotary hub. No other shower oscillation system can offer the patented benefits of ArcDrive and ArcGlide products.

Ultimate safety

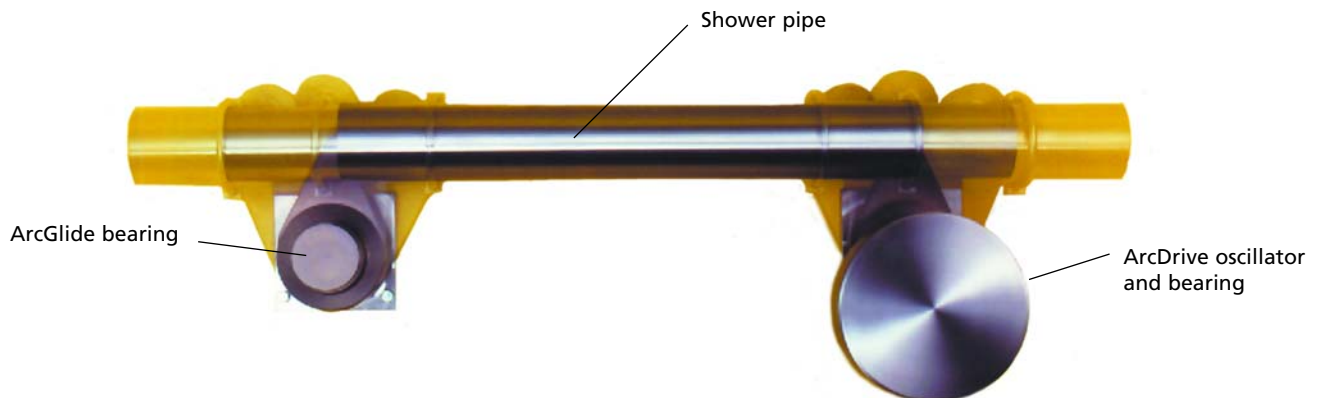
ArcDrive oscillators operate with an intrinsically safe 24V brushless DC motor. Weighing only 45 pounds, ArcDrive oscillators are the lightest electro-mechanical oscillator available. Additional safety features include no pinch points and safety shut-off relay that shuts down the high pressure water source if no motion occurs.

Compact size

The ArcDrive oscillator saves CD and MD space. It bolts to ArcGlide's main rotary hub with four bolts. There is no precision alignment or cumbersome anti-rotation device. Connect to your panel and run.

Precise control

The ArcDrive oscillator operates via a stand-alone control panel or can be integrated with a DCS. System parameters such as speed, stroke, and machine speed interface are input through push-buttons on the PC board. The LEDs alternately display oscillation speed and stroke setting.



ARCGLIDE™ SHOWER BEARING OSCILLATOR

The evolution

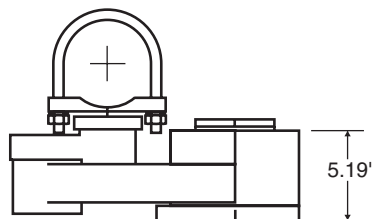
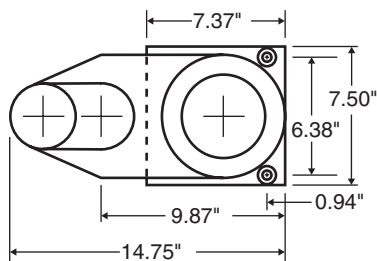
The shower bearing is the most fundamental component of any shower oscillation device. A component that must contribute reliability and longevity to produce paper machine efficiency. ArcGlide, a unique shower bearing, is so durable, easy to maintain, and easy to install that it is the new standard by which all other shower bearings are compared.

The concept

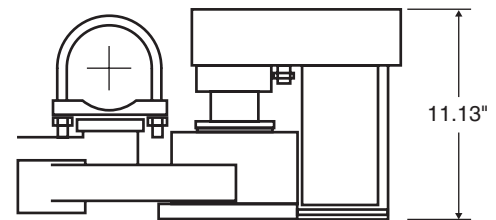
Kadant has patented the concept of transforming the path of two arcs into perfectly linear cross machine movement. Anti-friction bearings now support the shower. Sliding friction has been replaced by rolling friction – a 90% reduction in required oscillator thrust. Low oscillation force results in optimum oscillator life.

The installation

ArcGlide shower oscillation systems are compact and easy to install. For new installations or retrofits, ArcGlide bearings simply bolt to the machine frame, conserving valuable CD and MD space. Single or double tube showers only span to ArcGlide's pipe saddles. There is no need for additional pipe overhang to support an in-line oscillator and no anti-rotation devices or 90 degree water connection are required. Side loads from the shower pipe and the water hose are not imparted to the oscillator. Oscillator life expectancy increases dramatically with simple, straight-line thrust duty.



ArcGlide



ArcDrive

ArcGlide design features

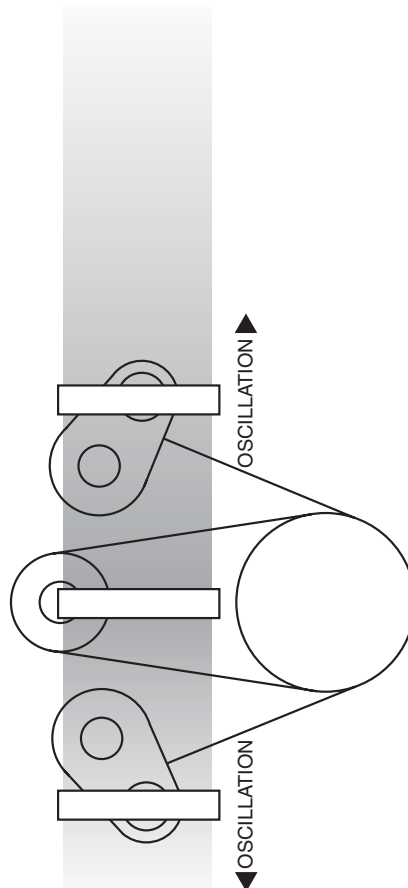
- ▶ Rolling friction replaces sliding friction
- ▶ No external bearings exposed to stock build-up
- ▶ Designed for severe duty
- ▶ No anti-rotation accessories needed
- ▶ No pinch points
- ▶ Condition of shower pipe irrelevant
- ▶ No awkward 90° water connections
- ▶ No side loads transferred to oscillator
- ▶ Minimal maintenance required

Construction benefits

- ▶ 316 stainless steel construction
- ▶ Oversized anti-friction bearings
- ▶ Compact size saves CD and MD space
- ▶ No excessive pipe overhang
- ▶ Both ends of pipe free to receive water connection

Installation simplicity

- ▶ As simple as tightening two bolts
- ▶ No precision alignment required
- ▶ Fits any size pipe, single or double tube construction
- ▶ Simplifies double tube construction
- ▶ Inner pipe can be locked to outer pipe – no internal bearings or guiding needed



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